

5 CLAIMS

What is claimed is:

1. A mobile material transfer unit comprising:
10 a mounting platform comprising a top side and a bottom side;
an axle attached to the mounting platform;
a plurality of wheels attached to the axle;
an access platform attached to the mounting platform;
a compressor attached to the mounting platform for creating a pressure
15 differential between a first storage medium and a second storage medium; and
piping to facilitate the transfer of material between the first storage medium
and the second storage medium.
2. The mobile material transfer unit of Claim 1 further comprising:
20 a fuel tank attached to the mounting platform; and
a tow hitch attached to the mounting platform.
3. The mobile material transfer unit of Claim 2 further comprising a fuel
line, wherein a first end of the fuel line is connected to the fuel tank and a second end
25 of the fuel line is connected to the compressor, whereby the fuel line provides a path
for fuel to flow from the fuel tank to the compressor.
4. The mobile material transfer unit of Claim 2, wherein the tow hitch is
capable of being attached to a hitch ball.
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5 5. The mobile material transfer unit of Claim 1, wherein the access platform comprises;

 an elongated access member attached to the mounting platform and extending from said mounting platform;

 a stairway attached to the access member;

10 a landing platform attached to the access member; and

 a gangway attached to a first side of the landing platform.

 6. The mobile material transfer unit of Claim 1, wherein the compressor further comprises:

15 an engine for powering the compressor; and

 a clutch for transferring the power created by the engine to the compressor.

 7. The mobile material transfer unit of Claim 1, wherein the compressor is a liquefied petroleum gas vapor compressor.

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 8. The mobile material transfer unit of Claim 1, wherein the piping to facilitate the transfer of pressurized liquid from the tank car and the tank comprises:

 a first set of piping connected to the compressor and capable of being connected to the first storage medium;

25 a second set of piping connected to the compressor and capable of being connected to the second storage medium;

 a third and fourth set of piping capable of fluidly connecting the first storage medium to the second storage medium;

30 a plurality of valves capable of adjusting the flow of material and vapor through the first, second, third, and fourth sets of piping; and

 a plurality of piping connectors for attaching the first, second, third, and fourth sets of piping to the first and second storage mediums.

5 9. The mobile material transfer unit of Claim 1, wherein the mounting platform comprises:

 a first pair of elongated members;

 a second pair of elongated members attached to the first pair of members to form a quadrilateral; and

10 a cover plate attached to the first and second pair of elongated members.

 10. The mobile material transfer unit of Claim 9, wherein the cover plate comprises metal.

15 11. The method of Claim 1, wherein the first storage medium comprises a rail tank car.

 12. The method of Claim 1, wherein the first storage medium comprises a tanker truck.

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 13. The method of Claim 1, wherein the first storage medium comprises a storage tank.

 14. The method of Claim 1, wherein the second storage medium
25 comprises a rail tank car.

 15. The method of Claim 1, wherein the second storage medium comprises a tanker truck.

30 16. The method of Claim 1, wherein the second storage medium comprises a storage tank.

5 17. A method for unloading material at a plurality of remote locations comprising:

 providing first and second locations accessible by a first storage medium;

 transporting a mobile material transfer unit to the first location and completing a first transfer operation of a first material from the first storage medium; and

10 transporting the mobile material transfer unit to the second location and completing a second transfer operation of a second material from a second storage medium.

 18. The method of Claim 17, wherein the method of completing a transfer operation comprises:

 placing the mobile material transfer unit near the first storage medium containing the first material; and

 unloading the first material from the first storage medium to a receiving storage medium by employing the mobile material transfer unit.

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 19. The method of Claim 18, wherein the first storage medium comprises a rail tank car.

 20. The method of Claim 18, wherein the first storage medium comprises a storage tank.

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 21. The method of Claim 18, wherein the first storage medium comprises a tanker truck.

 22. The method of Claim 18, wherein the receiving storage medium comprises a rail tank car.

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5 23. The method of Claim 18, wherein the receiving storage medium
comprises a storage tank.

 24. The method of Claim 18, wherein the receiving storage medium
comprises a tanker truck.

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 25. The method of Claim 17, wherein the first material comprises a liquid.

 26. The method of Claim 17, wherein the first material comprises
liquefied petroleum gas.

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 27. The method of Claim 17, wherein transporting of the mobile material
transfer unit is accomplished without disassembly of the mobile material transfer unit.

 28. The method of Claim 17, wherein the first and second location are the
20 same.

 29. The method of Claim 17, wherein the first and second locations are
separated by less than 10 miles.

25 30. The method of Claim 17, wherein the first and second locations are
separated by greater than 10 miles.

 31. The method of Claim 17, wherein the first and second locations are
separated by less than 50 miles.

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 32. The method of Claim 17, wherein the first and second locations are
separated by less than 100 miles.

5 33. The method of Claim 17, wherein the first and second locations are separated by less than 200 miles.

 34. The method of Claim 17, wherein the first and second locations are separated by less than 300 miles.

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 35. The method of Claim 17, wherein the first and second locations are separated by a distance greater than or equal to 300 miles.

 36. The method of Claim 17, wherein transporting the mobile material
15 transfer unit comprises:

 attaching the mobile material transfer unit to a motorized vehicle; and

 towing the mobile material transfer unit from a first location to a second location.

20 37. The method of Claim 17, wherein the method of transporting the mobile material transfer unit comprises:

 positioning an access platform in a transporting position;

 securing the access platform to a mounting platform;

 attaching the mobile material transfer unit to a motorized vehicle; and

25 transporting the mobile material transfer unit with the motorized vehicle to the second location.

 38. The method of Claim 37, wherein the motorized vehicle comprises an automobile.

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 39. The method of Claim 37, wherein the motorized vehicle comprises a truck.

5 40. The method of Claim 17, wherein the mobile material transfer unit comprises:

 a mounting platform comprising a top side and a bottom side;

 an axle attached to the mounting platform;

 a plurality of wheels attached to the axle;

10 a telescoping access platform attached to the mounting platform and capable of being adjusted in the vertical direction;

 a compressor attached to the mounting platform, for creating a pressure differential between the first storage medium and a receiving storage medium; and

 piping to facilitate transfer of a pressurized material between the first storage
15 medium and the receiving storage medium.

 41. The method of Claim 17, wherein the first location comprises a storage terminal.

20 42. The method of Claim 17, wherein the first location comprises a railroad yard.

 43. The method of Claim 17, wherein the first location comprises a railroad spur.

5 44. A mobile material transfer unit comprising:
 a mounting platform comprising a top side and a bottom side;
 an axle attached to the mounting platform;
 a plurality of wheels attached to the axle;
 a telescoping access platform attached to the mounting platform and capable
10 of being adjusted in the vertical direction;
 a compressor attached to the mounting platform for creating a pressure
 differential between a first storage medium and a second storage medium; and
 piping and hoses to facilitate transfer of a material between the first storage
 medium and the second storage medium.

15 45. The mobile material transfer unit of Claim 44 further comprising a fuel
 tank attached to the mounting platform.

 46. The mobile material transfer unit of Claim 44 further comprising a tow
20 hitch attached to the mobile material transfer unit.

 47. The mobile material transfer unit of Claim 46, wherein the tow hitch is
 capable of being attached to a hitch ball.

25 48. The mobile material transfer unit of Claim 44, wherein the telescoping
 access platform comprises;
 an elongated access member attached to the mounting platform;
 a stairway slidably attached to the mounting platform;
 a landing platform attached to the access member;
30 a gangway attached to a first side of the landing platform; and
 a lift for raising and lowering the gangway and landing platform.

5 49. The telescoping access platform of Claim 48, wherein the lift is a
pneumatic lift.

 50. The telescoping access platform of Claim 48, wherein the lift is a
hydraulic lift.

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 51. The telescoping access platform of Claim 48, wherein the lift is a
mechanical lift.

 52. The mobile material transfer unit of Claim 44, wherein the compressor
15 further comprises:

 an engine for powering the compressor; and

 a clutch for transferring the power created by the engine to drive the
compressor.

20 53. The mobile material transfer unit of Claim 52, wherein the compressor
is a liquefied petroleum gas vapor compressor.

 54. The mobile material transfer unit of Claim 44, wherein the mounting
platform comprises:

25 a first pair of elongated members;

 a second pair of elongated members attached to the first pair of elongated
members to form a quadrilateral; and

 a cover plate attached to the first and second pair of elongated members.

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5 55. A method for transferring at least one of a plurality of materials
between at least one of a plurality of storage mediums comprising:

 placing a mobile material transfer unit near a first storage medium containing
a first material;

 unloading the first material from the first storage medium to a second storage
10 medium; and

 maneuvering the mobile material transfer unit near a third storage medium
containing a second material.

 56. The method of Claim 55, wherein the first material is a liquid.
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 57. The method of Claim 55, wherein the first material is liquefied
petroleum gas.

 58. The method of Claim 55 further comprising unloading the second
20 material from the third storage medium to the second storage medium.

 59. The method of Claim 55 further comprising unloading the second
material from the third storage medium to a fourth storage medium.

25 60. The method of Claim 55, wherein the first storage medium comprises
a rail tank car.

 61. The method of Claim 55, wherein the first storage medium comprises
a tanker truck.
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 62. The method of Claim 55, wherein the first storage medium comprises
a storage tank.

5 63. The method of Claim 55, wherein the second storage medium
comprises a rail tank car.

 64. The method of Claim 55, wherein the second storage medium
comprises a tanker truck.

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 65. The method of Claim 55, wherein the second storage medium
comprises a storage tank.

 66. The method of Claim 55, wherein maneuvering the mobile material
15 transfer unit comprises towing the mobile material transfer unit with one of an
automobile and a truck.

 67. The method of Claim 55, wherein the first storage medium and the
third storage medium are separated by less than five hundred feet.

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 68. The method of Claim 55, wherein the first storage medium and the
third storage medium are separated by less than one mile.

 69. The method of Claim 55, wherein the first storage medium and the
25 third storage medium are separated by less than fifty miles.

 70. The method of Claim 55, wherein the first storage medium and the
third storage medium separated by a distance greater than or equal to fifty miles.

30 71. The method of Claim 55, wherein the mobile material transfer unit is
maneuvered a distance of zero feet.

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72. A method for transferring liquid from a storage medium comprising:
moving a mobile material transfer unit to a location where the unit is capable
of being coupled to a storage medium containing a material;
creating a pressure differential with a self-contained source positioned on the
10 mobile material transfer unit;
pumping the material through piping and hoses with the mobile material
transfer unit; and
moving the mobile material transfer unit away from the storage medium.

15 73. The method of Claim 72, wherein moving the mobile material transfer
unit comprises towing the material transfer unit over a public road.

74. The method of Claim 72, wherein moving the mobile material transfer
unit comprises towing the material transfer unit over a public road with one of a
20 automobile and truck.

75. The method of Claim 72, wherein creating the pressure differential
with a self-contained source further comprises creating the pressure differential with a
combustible fuel powered compressor.

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76. The method of Claim 72, wherein the material comprises a liquid.

77. The method of Claim 72, wherein the material comprises liquefied
petroleum gas.

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78. The method of Claim 72 further comprising the step of moving the
mobile material transfer unit to a second location where the unit is capable of being
coupled to a second storage medium containing a second material.

79. The method of Claim 78, wherein the second material and the material are the same.

80. The method of Claim 78, wherein the distance between the location
10 and the second location is less than one mile.

81. The method of Claim 78, wherein the distance between the location
and the second location is less than 10 miles.

15 82. The method of Claim 78, wherein the distance between the location
and the second location is less than 50 miles.

83. The method of Claim 78, wherein the distance between the location
and the second location is greater than or equal to 50 miles.

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84. The method of Claim 72, wherein the storage medium comprises a rail
tank car.

85. The method of Claim 72, wherein the storage medium comprises a
25 tanker truck.

86. The method of Claim 72, wherein the storage medium comprises a
storage tank.

5 87. A method for removing material from a storage medium comprising:
 positioning a mobile material transfer unit in a first location so that the
mobile material transfer unit is capable of being coupled to a storage medium
containing liquefied petroleum gas;
 generating power on the mobile material transfer unit;
10 moving the material through piping and hoses with the mobile material
transfer unit; and
 towing the mobile material transfer unit over a public road away to a second
location.

15 88. The method of Claim 87, wherein removing the liquefied petroleum
gas from the storage medium further comprises removing the liquefied petroleum gas
from a rail tank car.

 89. The method of Claim 87 further comprising creating a pressure
20 differential with the generated power.

 90. The method of Claim 87 further comprising creating a pressure
differential with a combustible fuel powered compressor.

25 91. The method of Claim 87, wherein towing the mobile material transfer
unit further comprises towing the mobile material transfer unit with one of an
automobile and a truck.

 92. The method of Claim 87, wherein the distance between the location
30 and the second location is less than one mile.

 93. The method of Claim 87, wherein the distance between the location
and the second location is less than 10 miles.

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94. The method of Claim 87, wherein the distance between the location and the second location is less than 50 miles.

95. The method of Claim 87, wherein the distance between the location
10 and the second location is greater than or equal to 50 miles.

96. The method of Claim 87, wherein the material comprises a liquid.

97. The method of Claim 87, wherein the material comprises liquefied
15 petroleum gas.

98. The method of Claim 87, wherein the storage medium comprises a rail tank car.

99. The method of Claim 87, wherein the storage medium comprises a
20 tanker truck.

100. The method of Claim 87, wherein the storage medium comprises a storage tank.
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